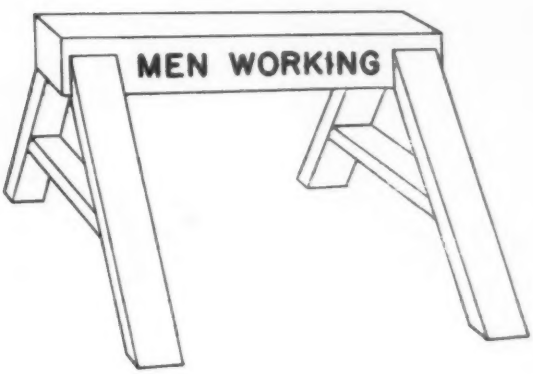
The Dentist

OCTOBER 1953 VOL. XII NO. 10 25c

(SEE BACK COVER)



Dear Doctor,

This sawhorse is usually seen on a construction project.

It also belongs in our laboratory.

Men working at high-speed dental lathes—carefully duplicating your original model—casting cases carefully, accurately—these are all men at work for you.

You have the right to demand certain qualities and skills from your dental laboratory. We are proud of our personnel, materials, equipment, and experience.

Combined they insure that you always get the best results. Every man in our laboratory works to complement and assist you in reproducing your professional skills.

Let us save you hours of valuable chair time by doing what you want, when you want it.

Very truly yours,

Your Teconium Laboratory

tic

lished monthly by TICONIUM
3 N. Pearl St., Albany 1, N. Y.
Copyright, 1953, Ticonium
Annual Subscription, $2.50

EDITOR, Joseph Strack

CONTRIBUTING EDITORS
Arthur H. Levine, D.D.S.
Joseph Murray, D.D.S.

A MAGAZINE FOR DENTISTS, DENTAL ASSISTANTS, AND DENTAL HYGIENISTS

ober 1953, Vol. XII, No. 10

ONTENTS

PRINT FOR SUCCESS
"The wonderful part of this structure for success is that anyone can draw the blueprint" 1

N ARE OFFICE IMPROVEMENTS APITAL OUTLAYS?
If you are planning repairs, read this expert advice and save taxes..... 4

GENIUS
Every college class has its Stephanou—but not like this one! 6

E-RING CIRCUS
A miniature profile of the President of the Women's Auxiliary of the Southern California Dental Association..... 7

FOR LIVING
Part Two of the story of Doctor Carl J. Henckelmann, Arctic Explorer 8

LES AND IMPRESSIONS
About the present and the past, by one of dentistry's most entertaining writers..... 11

REMOVABLE PARTIAL DENTURE
"Impression Techniques" — the fifth article in TIC's exclusive series 12

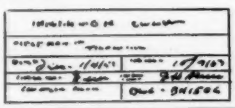
inions expressed by contributors to C magazine do not necessarily reflect the views of the publishers.

Printed in U.S.A. by C. P. Hoagland Co., Inc., Somerville, New Jersey

Cover artist, Edward Kasper

BLUEPRINT FOR SUCCESS

by Arthur H. Levine, D.D.S.



Of all the dentists practicing in this country not every one is a blazing financial success. The range of earning power is broad and extends from a handful at the top with enormous incomes down to the poor fellows at the bottom who cannot write a check for five dollars without hesitation. Between these extremes fall most of the dentists who, according to latest reports, are trailing physicians and lawyers in income but are not doing too badly.

What makes one man a success and another a failure? Factors which are essential for success have baffled experts as long as dentistry has been a full-blown profession. Some of the rules have not stood the test of time, while others still seem to make sense. An appraisal of some of the important factors in the light of present-day dental practice, therefore, is in order.

Before setting down any architectural tenets for creating this structure of dental success, it is important to keep in mind that dentistry is a profession. It is not a business, despite attempts to make it so. True, certain basic business principles apply in the running of an office, just as they do in the running of a house where no profit motive is involved. Spending more than one earns, for instance is a violation of a mighty powerful business rule that will soon wreck any home or dental office. But the relationship between the patient and the dentist is strictly professional. And any procedures aimed at success must conform to proper professional practice.

For example, it might be sound business practice for a manufacturer of heavy snow boots to drop the price during the summer in order to stimulate off-season buying. But it would be

"HI, COLLEAGUE. CARE TO DO A LITTLE WORK THAT WON'T GO INTO THE OLD INCOME TAX?"

disastrous for a dentist to try to run a week-end special. In other words, patients are not attracted by those methods, because dental practice is a profession, not a business. In the supermarket it is generally price that brings in the customer. But in the dental office, since the skill of the dentist and his manner of handling patients cannot be standardized (like a can of Del Monte peaches) price drops to the bottom of the list as far as being an important influence.

Three Essentials for Success

Three essentials make up the framework for success in dental practice. To state them simply they are: (1) the patient must come to the office; (2) the patient must be treated in such a manner as to create a willingness to return; and (3) the total experience of the patient must be so highly satisfactory that he becomes a one-man crusade in attracting other patients.

Some dentists never get past step number one. Others accomplish the first two but never quite reach the third. The men on top, however, excel in all three.

Let's go back to the poor fellow at the bottom of the heap who hardly ever gets beyond step one. For reasons which we shall discuss later, he gets very little "repeat business." Most of his patients constitute the emergency or one-visit type. They see his sign and walk in. Of his non-transient patients, some start out to get the whole job done but somewhere along the line they quit and never finish. This poor chap realizes that his practice is not growing; that he is just about scraping through; that, measured against the success of many of his classmates, he is a failure. But he does not know why.

One of the first things he blames is his location. Maybe he is on the wrong side of the street. Perhaps his sign ought to be bigger and bolder. Or it could be there are too many dentists in town. So he begins to look elsewhere. He finds a busy intersection and clocks the pedestrian traffic. He questions the druggist and the real estate agent. Finally, he moves. A year rolls by. He tries hard, but it is the same story.

Reasons for Failure

The reasons for his failure may be complicated and difficult to diagnose. These things are rarely easy to determine and might require a long survey by an expert. Self-analysis can be a solution, although no less difficult. For some men, in fact, it is almost impossible. But to list a few of the common reasons for failure at this level we have: lack of confidence in one's self, which is transmitted to the patient; a feeling of defeatism which pervades the office; carelessness; lack of cleanliness; poor professional training; and a dozen others that anyone might supply.

But most of the men in the profession have reached beyond step one. They are well trained, enjoy their work, are proud of their offices, and, in general, do a good job and are successful. In this group, at step number two we find the bulk of the dentists.

In this category most of the men have started modestly and have watched their practice grow a little

"I THINK, MRS. SPERDY, THIS IS A GOOD TIME TO TALK ABOUT FEES."

each year. They receive their share of recommendations and manage to hold on to most of their patients. They are well trained and interested in their work. After five or ten years of practice, they may not have accumulated any wealth but they do have a substantial practice that provides a good living standard.

The Men at the Top

The next step is the hardest to climb. Here we find a small, select group of dentists who have reached the ultimate in their profession. In many respects these men do not differ from their colleagues in group two. Their training and equipment have been the same. They are no more conscientious.

What, then, are the differences? Simply stated, a patient leaves the office of a dentist in group two satisfied and happy. But the patient who leaves the office of a dentist in group three is not only satisfied by the professional services he has received, he is enthusiastic to the point of wanting to share his good luck with someone. He, therefore, takes it upon himself to convince his friends that his dentist, Doctor Brown, is just about the greatest of all. It does not take many such enthusiasts to impress upon a community that Doctor Brown must, indeed, have special talents.

The result is that Doctor Brown soon has a practice that keeps him stepping. Since he has more patients than he can handle, with the result that appointments run far in advance, he feels justified in charging a fee that provides him with a high standard of living and enables him to perform the quality of service that he admires. His patients find facing them a happy dentist giving them the best type of dentistry he knows.

Talents of the Successful

Actually, what talents does Doctor Brown possess that make him so successful? Here, again, we find intangible qualities that vary considerably and are difficult to weigh or measure. Some, however, are universal and can be described. First on the list is the ability that a man like Doctor Brown has to "sell himself." The term is bad and is used only because it carries popular recognition. As a matter of fact, it has nothing to do with selling. It would be more accurate to describe it as a sharing of knowledge. Doctor Brown has such a thorough knowledge of his patients problems and the way to solve them that he wants to impart that knowledge to the patient. In the successful relationship, the feeling is quickly transmitted to the patient that Doctor Brown not only possesses unusual knowledge and ability, but is most eager to use it for the benefit of the patient.

In Doctor Brown's office you will hear the patients say, "If you tell me I need it, that's enough for me;" or, "You're the doctor;" or "Whatever you say." In other words, they relax, knowing that Doctor Brown has the best interests of the patient at heart. The patients believe in Doctor Brown, in his professional skill, in his integrity.

(World Wide Photo)

DENTISTRY IN "OPERATION BIG SWITCH"

Pfc. James H. Montgomery, Weston, West Virginia, captured in Korea by the Communists and repatriated in "Operation Big Switch," is given a dental checkup by Lt. Gordon Galin, USNR, with Corporal Elaine Entrola assisting, at Tokyo Army Hospital Annex.

To climb the mountain of dental success is not easy. That is why so few reach Doctor Brown's altitude. Some men can never reach it because they lack certain natural qualifications that are essential. But there are some men who belong in group three, because of natural qualifications as well as training, yet never quite make it. Why?

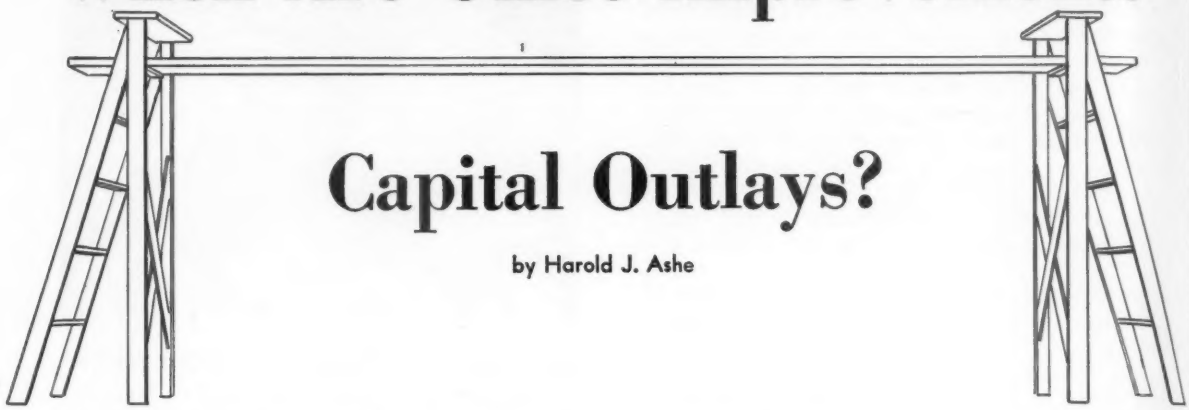
Attitude Is All-Important

Mainly, it is a question of attitude or philosophy. The patient must feel that the dentist is looking out for his interest. The patient must be made to feel that the dentist is on his side. How that is to be accomplished is a personal matter. Rest assured no patient will have that nice warm feeling that the dentist is on his side unless the dentist actually is. This can be no act.

Maybe it takes excellent training, a pleasing personality, a super-clean, attractive office and everything that goes with it, pride in one's work (not the artificial, hold-up-the-mirror type, "Isn't that the most beautiful inlay you ever saw!"). Maybe it takes a quiet self-confidence or a dozen other intangible qualities. The wonderful part of this structure for success is that anyone can draw the blueprint. There is no standard plan and there are no fixed rules. So get out the drawing board, plan it the way you like, and convince the patient that you are on his side.

On the Business Side:

When Are Office Improvements Capital Outlays?



by Harold J. Ashe

A good deal of confusion still exists in the minds of dentists as to how to treat office repairs, alterations, and additions for purposes of income taxation. If a dentist owns his office building or is obliged by the terms of his lease to take care of certain repairs and alterations, these periodic outlays may not be negligible and are fraught with serious income tax implications. Undertaking to accomplish a certain purpose, tax-wise, a dentist may discover too late he has erred, and that his income tax return is open to challenge by the Bureau of Internal Revenue.

"Business improvements" is a loose term when used by the layman. However, it has a rather exact meaning in its income tax application. In some cases, so-called improvements may be treated as deductible repair expenditures in the year made; in other cases, such improvements must be handled as capital outlays. Tax-wise, whether an improvement must be treated one way or another may have a material bearing on whether the outlay should be made or be deferred.

What is here said about office repairs, alterations, and additions applies as well to income properties owned by dentists.

Where a certain outlay can be charged off entirely in the year in which it is made, this fact, of course, will be reflected in the year's net income. The net income will be reduced by the amount of the outlay and this, in turn, will reduce the tax bill.

On the other hand, if the outlay must be capitalized, it can be recovered only over a period of years. The tax saving will be spread over these years.

This situation is further complicated by our present graduated income tax rates and by the fact these rates can be raised or lowered from year to year by congressional action. Still another factor is the fluctuating net income of a dentist from one year to the next, which no dentist can predict for the future with any degree of certainty—least of all for the period over which a newly acquired capital outlay must be depreciated.

Two Considerations

Thus a dentist is confronted with two fundamental considerations: (1) whether such an outlay will be deductible in full in the year in which it was made; and (2) what effect such an outlay will have upon his income tax immediately or over a period of years.

A dentist, enjoying an unusually profitable year, may toy with the idea of making a certain outlay during that year to reduce sharply his net income and thereby cut down on his income tax bill. If, in fact, this outlay can be charged off in the year made, it may be a wise move. On the other hand, if the outlay must be capitalized with yearly write-offs to be made for several years into an uncertain future, the proposed outlay may call for more careful attention. The one requires a short-range view, the other needs a long-range analysis.

The tax saving that can be effected by charging off such an item in the current year can usually be predicted with a fair degree of accuracy by fall. Net earnings by then are largely known. On the other hand, the tax savings that can be made on a capital outlay, at best, are in the realm of crystal gazing. If net earnings in any of these future years are negligible, then the write-off in such low-earning years will have little or no effect on income tax bills for those years. That is, in years of poor earnings, a dentist's personal exemptions and deductions may be sufficient to offset limited earnings so there is no tax. Thus, having additional write-off charges in such years will have no tax-saving value.

Expenditures for ordinary repairs to a business property are fully deductible in the year in which repairs are made. This includes repairs to plumbing and heating systems, electrical services and similar facilities, as well as repainting of interior and exterior.

One recent tax court decision explained a repair expenditure as follows:

A repair is an expenditure for the purpose of keeping a property in ordinary efficient operating condition. It does not add value to the property and it does not appreciably prolong its life. It serves only to keep a property in an operating condition over its probable useful life for the use for which it was acquired.

The same tax court explains a capital expenditure as follows:

A capital expenditure is made for a replacement, an alteration, an improvement or addition which prolongs the life of the property. It increases its value or makes it adaptable to a different use.

Thus, an attractive new front might be built to replace an obsolete one. This would be a capital expenditure because, among other things, it increases the value of the property. The same would apply to the adding of another office room to an office building, laying a cement driveway or parking area, or even throwing up partitions to divide a large area into smaller rooms.

Divisible Treatment

When a dentist undertakes to make certain physical improvements he often lumps repairs and capital outlays together. For tax purposes, a division is imperative. And, to ensure that these will not be challenged by income tax bureau auditors, it is wise to let two separate contracts even if only one contractor is employed.

For example, a dentist may build an addition to his office and, coincident with this, decide to paint both the exterior and interior of his present structure. He may ask a painting contractor to figure the entire job, both new work and old, in one contract. However, he should ask for two separate contracts, one on the old work which is a repair expenditure; and the other on the new addition, which painting contract, along with other building costs, represents a capital outlay. The same treatment should apply to any other work where a division is called for between capital outlay and repairs.

Where a dentist maintains an office in his home, it is also wise to make a division of outlays. If a repair is made solely to the office, this is wholly deductible as a professional expense. Many repairs, however, are partially personal and not deductible and partially professional and deductible. It may not be possible to arrange separate contracts for such jobs, but a careful division based on the facts should be made by a dentist.

Lease Treatment

Where a dentist leases his office, he may be confronted with substantially the same problems. The terms of his lease may call for keeping the premises in repair and doing periodic painting. These will be treated as repair expenditures, just as though he owned the building, although, actually, these outlays represent additional rent charges.

In the case of capital outlays, such as remodeling an old building or suite of offices at a dentist's expense to make them suitable for his practice, these outlays must be capitalized, just as though he were the building owner. However, he may be able to set up a shorter write-off period. If the normal useful life of an improvement is longer than the period of time the lease has to run, he may write off the improvement to coincide with the expiration of the lease. That is, a certain improvement may have a normal useful life of twenty years. If, however, the lease is for ten years, the improvement can be written off in ten years.

Rental Properties

Dentists should give special consideration to the repair needs of income properties, whether the properties are showing a good return on the investment or not. If repairs are needed, it may be unwise to postpone such repairs on the grounds that the property itself can't pay for the repairs out of earnings and still leave a substantial return. Such compartmentalized thinking ignores the factor of income taxes. While such a repair charge will directly be chargeable to and reduce the earnings of the property in question, it also serves to reduce the *total* taxable income of a dentist, and thus reduce his tax bill.

An Easy Tax Saving

By late fall, a dentist should have a pretty fair idea of what his professional earnings for the year are likely to be, as well as other income. If the year gives promise of being better than usual, he may be warranted in taking care of past-due repairs and even anticipate future repair needs.

The year in which such repairs should be made, if there is a practical choice, is the one in which such expenditures will represent the largest possible tax saving. That is, the higher the income tax bracket in which any income is in, the more compelling the reason for doing repairs. And, taxwise, the less such repairs will cost.

MY HAT IS OFF

All honor is due to the dentist who's able
To fit dentures to ridges as flat as a table.

—Alvin A. Shure, D.D.S.

DENTISTRY IN THE PRESS

(Text and Photos by World Wide)

Getting a refill is a new toothbrush that carries toothpaste in the handle. A twist and a push of the handle and the paste flows up from the center of the bristles for immediate use. The toothbrush, called "Twisto," is the brain child of inventor Roderick E. Asturias, and is being manufactured by the Twisto Container Corp., of Redwood City, Calif.

As president of the National Association for Better Radio and Television, Mrs. Clara S. Logan, wife of a Los Angeles dentist, is shown at her typewriter, firing salvos at broadcasters and sponsors and issuing surveys and bulletins. She has converted an upstairs room of her home into headquarters for the expanding organization.

THE GENIUS

I suppose every college class has its Stephanou, but there was only one Gene Stephanou and he was in my freshman class in dental school. After the first few months at school it was quite obvious to all of us that Stephanou was not only the outstanding student but would probably go on to be an outstanding dentist. He was a genius, the only real genius I ever knew intimately.

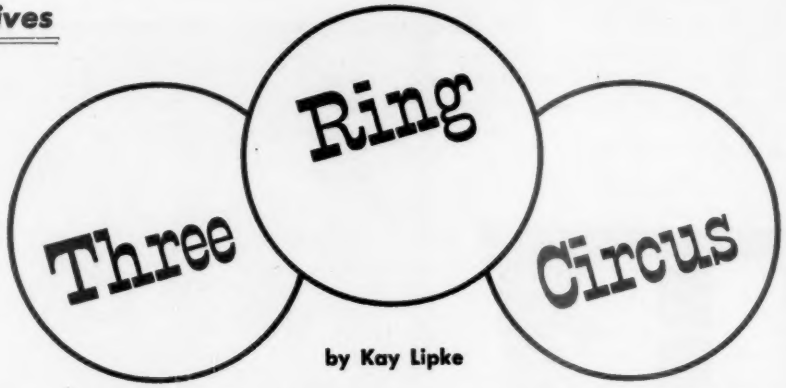
Of course, aside from his remarkable mental capacities, he had an edge on all of us in experience. His father was a prominent Connecticut dentist and his uncle owned a large dental laboratory. While most of us had been spending our summers between college semesters waiting on tables at some fancy health or summer resort or driving ice cream trucks, Gene was working in his uncle's laboratory. So it wasn't too surprising that when we were just getting the knack of setting up teeth in wax he was busy flasking his cases. He was at least a step or two ahead of everyone else, and he really rubbed it in. Gene was a personable and likable chap but he sure liked to rub it in. He was good, he knew it, and he took every opportunity to remind us of it too. Since there was really no basis for comparison, none of us was jealous, but we did resent being constantly nudged about his superiority.

During the months we studied dental anatomy, one of us would collect the extracted teeth from the surgery room and together we'd examine them and try to identify them as to whether they were cuspids, biscuspids or molars, and whether they were on the left or right side and in the maxilla or mandible. When Stephanou joined us he never looked at the teeth. Instead, he insisted on holding the tooth behind his back and, just by fingering the root and crown and feeling for the cusps and fossa, he would immediately identify the tooth. And he was always right. As I said before, Stephanou was a genius.

One afternoon I had gone to collect the teeth at the exodontia room and came across a real anomaly. It was a tooth with four roots and a peculiarly shaped cuspid-like crown. I showed it to the instructor and he remarked that it was the only four-rooted bicuspid he had ever seen and that it was a lower left second premolar. This was a real prize catch. I said to myself, "Let's see the genius identify this one!" Quickly I summoned together a few of my companions and that evening we called on Stephanou. Without any preliminary chatter we immediately challenged him to identify the tooth I held in my closed fist. He took it from me, put it behind his back, and said, "Easy." That was our cue. Each of us bet him a beer, and watched him carefully. Without a moment's hesitation, he proclaimed it to be a lower bicuspid, lower left, lower left second bicuspid. When we invited him out for the beers, he asked for a rain check—his mouth was still sore from the lower left second bicuspid he had had extracted in surgery that morning!

M. J. T.

Dental Wives



by Kay Lipke

Some years ago a young Southern California girl thought it would be "quite a lark" to study dentistry. Her best friend was enrolling and it sounded like a lot of fun.

The friend soon dropped out, the fun wore off, and the hard work began in earnest. However, the challenge spurred her on until she graduated and earned the coveted D. D. S. after her name.

Today Doctor Virginia Kurtz looks back and admits that being a woman dentist has not been "quite a lark." In addition to being a dentist, for twenty-five years she has been the wife of Doctor Bruce R. Kurtz, a Pasadena dentist, and is the mother of two grown daughters, one of whom has just married.

This month she assumes still another responsibility: she is the newly elected president of the Women's Auxiliary of the Southern California State Dental Association. In fact, she is the first dentist to become the president of a state auxiliary anywhere.

"How on earth do you blend all these careers smoothly in your life?" I asked enviously.

"I don't!" she retorted, laughing. "I just keep going and somehow things seem to fit into some sort of pattern. But it is really a three-ringed circus. That is why I resigned from active dental work several years ago. Personally, I do not approve of a woman working after her children are born, but circumstances forced me into it.

"When our second daughter was six-months old, the depression was at its height, and there was an acute need for a school dental clinic in Pasadena, where we lived.

"Our dental society offered to sponsor a clinic, with the approval of the City Fathers, and I was asked to organize the clinic and take charge of it. The need was so great that I simply could not say no. I planned to stay just a year or two. I was there twelve years."

Being a dynamo of energy, even after her retirement she could not quite settle down to being just a housewife. She took a post-graduate course in children's dentistry, and in turn gave refresher courses to other dentists interested in that field.

In fact, her entire dental career has been associated with children's dentistry, and she has never been in private practise. Immediately after graduating from the University of Southern California College of Dentistry, she became associated with the Southern California County Health Department, and married Doctor Kurtz. She continued with the health agency just before the birth of her first daughter.

She is an attractive person, very feminine, and blessed with clear thinking, an almost masculine ability to face facts—if I dare characterize it that way.

Her honesty is tremendous. "I should have retired long before I did, but it flattered my ego to feel that I was needed," she said.

I sprang to her defense. "I don't call it ego at all," I countered. "You were serving children who needed you. That is service."

She laughed. "Service is one of the names behind which ego hides. Someone else could have carried on my work. Besides the financial return was not large enough to compensate for the sacrifice to our family life. However, I liked the work and the responsibility; I might as well admit it."

Both Virginia and Bruce Kurtz have always been vitally interested in the promotion and development of dentistry, and have been prominent in dental activities for years. Although they both have been dentists during the major years of their marriage, their professional activities have been found in different fields.

"What do you consider the most important advice for a working dental wife?" I asked her.

"Don't get tired!" she retorted instantly. "I mean it seriously. If it has to be a three-ringed circus, try to make it a circus with the accent on companionship and fun. This is impossible when you are exhausted. A tired wife sometimes forgets that her husband has worked as hard that day as she has. In my opinion, it is essential that one be rested when one's husband comes home from the office. Try to get home long enough before he does, so that you can change into a fresh dress, fresh make-up, and, above all, a fresh viewpoint."

R FOR LIVING

DR. CARL J. HENKELMANN—ARCTIC EXPLORER

by JOSEPH GEORGE STRACK

Part Two

The twenty-two Eskimos at Anaktuvuk Pass, augmented by forty others recently, have continued to live their simple way of life. When Doctor Henkelmann examined them not long ago he did not find a single decayed tooth among all sixty-two Eskimos. He attributed the soundness of their oral health—although their teeth were "dirty and crooked"—to their diet.

"They eat rock cranberries, salmon berries, and rose hips—the latter a berry rich in vitamins A and C," he explains. "Their meats are caribou, mountain sheep, bear, and ground squirrels; and they eat fish as well. Their choicest delicacy is the soft milk curd found in the stomach of a nursing caribou calf; and to finish, they eat raw berries and vitamin-rich flowering buds. I believe that their diet of meat, wild berries and willow tips, and the absence of sugar, is responsible for their excellent teeth."

He contrasts the eating habits of this last known band of nomadic Eskimos with their brothers around Barrow, who became "rich" working on government oil projects at the naval installation. "The Barrow Eskimos have taken to eating our

Dr. Henkelmann making models of Eskimo mouths.

Life-like plastic as well as plaster models have been made for study and exhibition at dental meetings.

breads, pasteries, and candies, and I found their teeth practically rotted away," he says. "Three of the nomadic Eskimos, including a sixteen-year-old girl, journeyed to Fairbanks and stayed there for three years. During that time they ate the foods of civilization. At the end of the third year the girl's teeth were 'all shot'."

"There was a marked difference in the dental health of the children whose fathers were not employed at Barrow," he points out. "These families did not have big incomes and therefore could not afford to eat the foods one can purchase with $300 and $600 in a civilized comunity. These families had to eat the simpler foods, the old Eskimo foods. These families continued to go out to get roots and plants, of which there are five or six edible varieties that grow wild in Alaska. Being unable to buy the teeth-destroying luxury foods, these persons were at least fortunate enough to escape caries."

Eating Habits and Dental Health

There is a relationship between the eating habits of the nomadic Eskimos in the Brooks Range of mountains—325 miles south of Point Barrow, the northernmost outpost of North America—and the soundness of their teeth, Doctor Henkelmann believes. Emphasizing the fact that their meals consist primarily of meats and fruits, he explains: "I have, year after year, considered what I call their 'last-bite technique'—finishing a meal with a fruit or a raw vegetable or meat. That fruit or vegetable scours the teeth of all acids and other decay-causing factors, I believe. A raw carrot would be ideal for this purpose. It would, for example, clean the teeth of all traces of our rich deserts, which, if left in the mouth, promote decay. Even a piece of steak makes a better ending to a meal than ice cream, cake or pie, if we wish to avoid caries." He says, positively, that dessert, if eaten at all, should be eaten first or should be followed by one of the "decay-preventing foods." This one change alone in American eating habits would bring about a reduction in dental caries, he assures us.

Extractions at Point Barrow. At right, Edith Tegoseak, who was the doctor's liaison with the natives and who assisted him with all his work at Point Barrow.

"Last-Bite Technique"

Doctor Henkelmann has come to believe so strongly in this "last bite technique" that he has had printed on the back of his professional cards a message to that effect, as follows:

For *real good teeth*
Watch what you eat.
And when you eat,
For your *last* bite,
If you want to be right,
Instead of a sweet,
Eat raw *fruit*, raw *vegetable*, or *meat*.

He has passed out 2,000 such cards at dental meetings, hoping that dentists will be reminded to help their patients remember "what is best for that last bite." If you were at the 87th Midwinter Meeting of the Chicago Dental Society last February, you probably heard Doctor Henkelmann tell his audience that cultivation of the habit of finishing a meal with the "last bite technique" constitutes an excellent means of combatting the effects of civilized diets on the teeth.

He emphasizes: "Do not forget that these Eskimos have never seen a cow. I contend that cow's milk is not essential to good teeth."

Eskimo children eat willow tips in the spring, a kind of "Nature's toothbrush," he says, and in August they add rosebud hips to their diet, a food said to have the highest vitamin content of any one food known to man. "I noted that some of the

Checking mouths of the small fry.

middle-aged people used small willow twigs sharpened with a knife, or toothpicks, as a means of stimulating their gums," he reports. "This homemade toothpick was used to stimulate the gum tissue between the teeth, a recognized method of stimulation even here."

Doctor Henkelmann advocates that parents brush their children's teeth until "at least twelve years of age—although the age may vary with the individual child." He especially recommends such a procedure in the case of children with dental decay, and adds:

"The child undoubtedly is eating foods of the destructive type. Briefly, foods other than fruits, vegetables, and meat can be classed as destructive. The child must be taught to follow such foods with the protective ones, or to rinse or brush the teeth, lest decay result."

He says the Eskimo jaw is well developed, large, and strong, and the teeth are well formed. Most Eskimos have end-to-end bite. Some malocclusion in the front teeth and lateral incisors was found, and the adult teeth showed extreme wear caused by "heavy chewing on foods requiring great pressure and by grit and sand which finds it way into their type of living."

Doctor Henkelmann is a member of the famous Explorers Club, whose members he has addressed on the subject of his Alaskan trips. One of his closest friends is also a Club member—Doctor Victor Levine, Creighton University scientist and authority on Alaska, with whom he made his first trip to that country.

Doctor Henkelmann's five visits to Alaska have not been plush stop-overs. His headquarters have been Quonset huts and canvas tents, usually the latter, with caribou hides on the floor and tin camp-stoves for heating and cooking.

It was with understandable pride that he took his daughter, Mary, along with him on a recent trip and introduced her to his nomadic friends at Anaktuvuk Pass.

Said the eighteen-year-old girl after spending three rugged months in the North Country: "I appreciate, more than ever before, every privilege of modern life that I enjoy in the United States. I also understand, as I never did before, what Dad calls the 'countless pressures of civilized life'. I have learned at firsthand, too, what eating habits can do to teeth. And, above all, I am prouder than ever that my dad is what he is—a dentist. No other professional person can do what a dentist can: preserve and promote mouth health."

Doctor Henkelmann's home and office are almost museums, with arrow heads, walrus whiskers, woven materials, tools, bracelets, harpoons, fire hooks, model kayaks, dance masks, and skulls.

While back in the Federal Securities Building in Lincoln, Nebraska, where he practices, he maintains contact with his Alaskan friends by mail. A trader-friend, Pat O'Connell, wrote to him recently about the Eskimos at Anaktuvuk Pass. Last March, when these articles were being prepared, the news was bad: no caribou had come through the Pass—for the first time in history. The trader reported that Frank Rulland, one of Doctor Henkelmann's Eskimo friends, had to kill some of his dogs because they had been starving for lack of food.

Getting ready to pole a raft across the John River to go sheep hunting.

A grim picture—the empty meat rack.

Doctor Henkelmann has been practicing dentistry ever since he obtained his D.D.S. in 1924 from the University of Nebraska Dental College. In addition to being a member of the Explorers Club, he is a member of the Nebraska N Club, the Arctic Institute of North America, and numerous dental organizations.

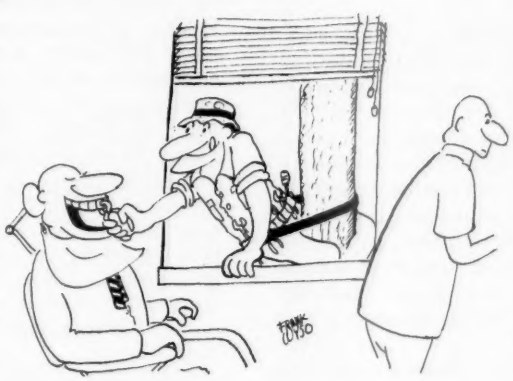
He says: "Doctor, it is good to live in two worlds. Try it."

ANGLES AND IMPRESSIONS

by Mauice J. Teitelbaum, D.D.S.

Dental Thisa and Data:

The new social reform bill passed by the Swedish Parliment recently is expected to cost Sweden over 140 million dollars a year. It is a compulsory health insurance bill that guarantees all Swedes 16 years of age or older, compensation in case of sickness and full medical care "of vital importance." The bill will not become effective until January 1st, 1955. . . . With a large number of dentists to be discharged at the end of the year, an increased number of dentists in the higher age group can expect to be called into the U.S. armed forces. The regular draft, it is felt, can-not provide the estimated 12,000 needed in the next two years . . . The latest A.D.A. survey reports that there are 91,638 dentists in the U.S. or one dentist for every 1,691 persons. The newest tabulation of dental practitioners lists 84,-215 civilian dentists and 7,423 serving in the armed forces and the Veterans Administration . . . Extensive research studies both at the U.S. Dental Clinic at Randolph Air Force Base, Texas, and at the Eastman Dental Dispensary, Rochester, N. Y., revealed the following: "There is no satisfactory evidence . . . notwithstanding the advertising claims—that a dentifrice with a high urea content reduces dental decay. . . ."



Incidentals

A woman in Massachusetts was granted an uncontested divorce from her husband after she testified that he used to take out his upper plate and throw it at her . . . If you ever think of giving up dentistry, here's a good job for you: weatherman in Munich, Germany. Why? Well, in one day, from 8 A.M. to 6 P.M., the Munich area had four rainshowers, three snowstorms, two hailstorms, the sun came out four times, and, late in the afternoon, there was a lightning and thunder storm. During the short intervals left, it was cloudy. How could a weatherman possibly go wrong! . . . From the *Armed Forces Medical Journal* comes this "notable ancient fact," which offers some idea of the nature and number of drug substances used in medicine at the time of King Charles II: "While being shaved one morning in 1685, the king fell backward and had a violent convulsion. Treatment was immediately begun by a dozen or more physicians . . . He was bled to the extent of 1 pint from his right arm. Next, his shoulder was incised and 'cupped,' depriving him of another 8 oz. of blood. After an emetic and 2 purgatives, he was given an enema containing antimony, sacred bitters, rock salt, mallow leaves, violets, beet root, camomile flowers, fennel seed, linseed, cinnamon, cardamon seed, saffron, and aloes. The enema was repeated in 2 hours and another purgative given. The king's head was shaved and a blister raised on his scalp. A sneezing powder of hellebore root and one of cowslip flowers were administered 'to strengthen the king's brain.' Soothing drinks of barley water, licorice, and sweet almond were given, as well as extracts of mint, thistle leaves, rue, and angelica. For external treatment, a plaster of Burgundy pitch and pigeon dung was applied to the king's feet. After continued bleeding and purging, to which were added melon seeds, manna, slippery elm, black cherry water, and dissolved pearls, the king's condition did not improve and, as an emergency measure, 40 drops of human skull extract were given to allay convulsions. A rallying dose of Raleigh's antidote was also given. This contained an enormous amount of herbs and animal extracts. Finally bezoar stone was given. As the king's condition grew increasingly worse, the grand finale of Raleigh's antidote, pearl julep, and ammonia water were forced down the dying king's throat." Forced? Do they mean to imply that he swallowed the rest of the garden, drugstore, quarry, and vegetable patch willingly???

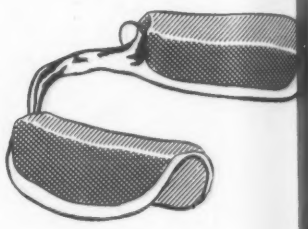
SONG OF A NEW DENTURE

Oh, test me well for fit and fitness,
And I shall never bear false witness!

by Mildred Mason

The Removable Partial Denture:

Impression Techniques



The fifth article in a series
by Joseph Murray, D.D.S.

Copyright, 1953, by Ticonium. Reproduction in whole or in part forbidden without the written permission of the publishers.

Before taking the final impressions for partial denture construction, the dentist should ask himself: "Have I placed the proper emphasis on the preliminary preparation of the mouth?" So admonishes Doctor J. S. McKenzie.

For, be it colloidal materials, alginates, plaster, modeling compound, fluid wax, zinc oxide and eugenol or any special technique used to record the teeth and denture-bearing areas, nothing can supplant the application of common sense and sound principles of design to preserve the remaining teeth, ridges, and bony structures.

Three Requisites

According to Doctor C. H. Schuyler, impression procedures will vary with the requirements of the appliance to be constructed. He suggests that the three requisites for a good impresson are: (1) It must record a true counterpart of the remaining natural teeth; (2) it must include the complete denture area; (3) the impression material should have sufficient body to equalize the pressure over the entire saddle-supporting area, even though the tissue presents varying degrees of compressibility unless the restoration has both anterior and posterior abutment support.

Impression techniques using thermoelastic (hydrocolloid) and chemoelastic (alginate) materials are in vogue today because they give a perfect impression of the teeth and a good reproduction of the soft tissues, without distortion. Where equalization of stress is desired, as in free-end saddles, they can be used in conjunction with modeling compound or wax.

Doctor Schuyler points out that the hydrocolloids and alignates are preferable to plaster of paris because they are removed without fracturing, thereby avoiding complications due to lost fragments or errors in reassembling. Moreover, their use eliminates the need for varnishes or separating media which may destroy fine detail in the cast.

It is of the utmost importance that these impressions be poured immediately to prevent distortion through dehydration, and that the manufacturer's instructions be followed implicitly.

Some clinicians, because they possess unusual skill and experience, will take sectional impressions in compound, which will result in good tooth detail and accurate outline of denture-supporting areas, with equalized adaption to tissues of varying resiliency.

Modeling compound, wax or zinc oxide and eugenol can also be used in functional impression and rebasing techniques, especially in the construction of acrylic saddles.

Many prominent prosthetists still use plaster of paris, more often in the construction of precision-attachment partial dentures. Here again, dexterity, experience, and individual preferences will determine the method of choice.

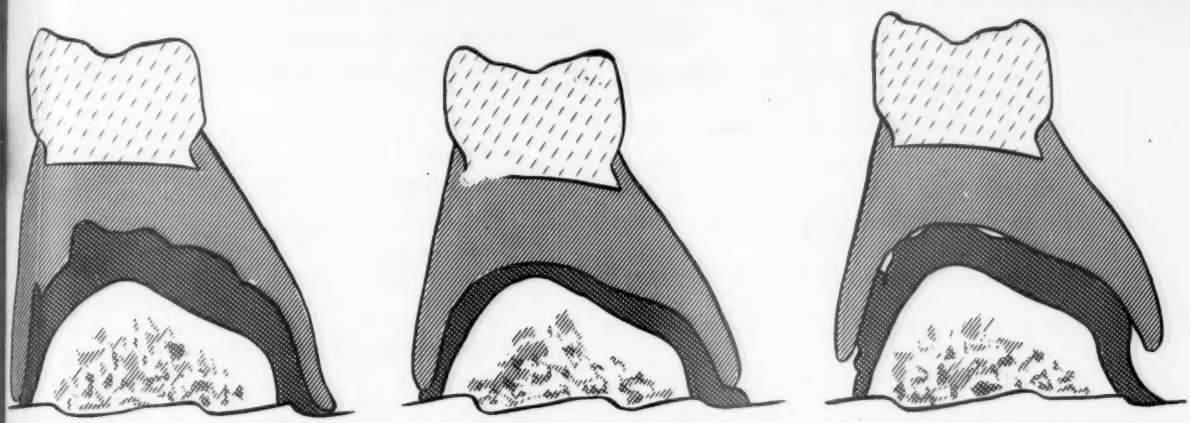
But, by whatever method secured, in all instances the proper fit of occlusal rests and clasps upon the teeth, and their proper relation to the denture base, is most important. For only then can there be a harmless distribution of force and no wedging of abutment teeth by the finished restoration.

Impressions of Saddle Areas

Since distal-extension appliances pose the greatest problem in partial denture construction, saddle design assumes great significance. In addition, where precision attachment restorations are involved, the maximum denture-bearing area should be utilized, and the denture borders should be of sufficient thickness and well rounded, says Doctor A. Leff.

Although cognizant of the fact that there is considerable difference of opinion regarding the most effective method for making the impressions of the saddle areas, Doctor Leff is of the opinion that the denture saddle should be a faithful reproduction of the maximum denture-bearing area, taken with the tissues in their *passive* state.

He declares that one school of thought believes the tissues should be recorded in their functional



MUCOSTATIC IMPRESSION
NATURAL TISSUE POSITION
NO REBOUND

STRESS IMPRESSION
DISTORTED TISSUE
POSITION
POTENTIAL REBOUND

TISSUE POSITION
AFTER REBOUND
BASE LIFTED

state and the impression made under occlusal stress.

The opposing school (Leff, Hindels, DeVan) stresses the registration of tissues in their passive or anatomic shape. This is known as the mucostatic type of impression.

In his case against the functional method of securing saddle-area recordings, Doctor Leff poses the following questions:

Do the impression material used and the amount of pressure applied achieve the desired functional distortion of the tissues?

Is it advisable to reproduce this "functionally" distorted tissue surface on the denture base in the hope that the tissues will distort in exactly the same fashion under varying functional conditions?

Assuming that there is a difference in tissue form between the functional and anatomic (rest) states, is there any trauma produced by the initial impingement of a functionally surfaced denture saddle against the tissues at rest?

This popular clinician feels there is reason to believe that when intimate apposition exists between the tissue surface at rest and the denture base, no change occurs in this position even under functional stress, since the denture base tends to inhibit tissue distortion.

Doctor Leff lays emphasis on the exact relationship of the saddle to the abutments, both at rest and during occlusal stress, and the necessity for establishing this relationship accurately. Because the functional position occurs during the stress of mastication, it is important to establish this position in relation to the abutment teeth in order to avoid unfavorable torsional effects. The resiliency of the tissues returns the denture saddle to the rest position.

During this movement there is no injury to the abutment teeth since the rotational force involved is comparatively small and in a more favorable mesial direction. By slightly elevating the male attachment in its receptacle, Doctor Leff allows for accomodation of this vertical play.

In brief, an accurate relation of the saddles to the abutments can be obtained by making an impression of saddle areas at rest in an individual shimmed tray; then, by exerting positive functional stress on this tray while a second impression records the relationship of the abutment teeth to the first impression and to each other.

Clinical Procedure Described

Doctor Leff describes the clinical procedure this way: A rigid metal or acrylic tray which encompasses the denture-bearing areas and has an outline similar to that of the finished appliance, is constructed.

This tray is made with a suitable relief from the tissues in order to allow for a mucostatic-type impression to be made with a free-flowing impression paste. The impression of the soft tissues is removed from the mouth when set — inspected, trimmed, and tested for stability.

The second one is a stock impression tray which has openings cut into it to allow the operator's fingers to be placed over the saddle areas of the first tray.

With the mucostatic impression in place in the mouth, the second tray is used to take a plaster impression of the entire upper or lower jaw. The practitioner places his fingers through the aforementioned tray openings and exerts positive seating pressure against the first tray until the plaster is fully set. Gauze or tin foil can be used to prevent spilling of the plaster through the tray openings.

SHOCK TREATMENT

(Electric shocks from fillings in teeth may cause pain and disease of the mouth, the American Association for the Advancement of Science was told.—AP news story.)

Says Dr. William Schriever of Oklahoma U.,
A fearful dental problem comes sparking into view.
A single metal filling, the doctor proves it well,
On contact with saliva's a small electric cell.

There's not enough saliva? Bone fluid's quite all right,
For either fluid acts as a fine electrolyte.
Their ions throng the filling, make tiny lightning bolts
That Dr. Schriever measures in hundred millivolts.

And what about the patients with molar batteries?
Their tongues and gums are painful, they know no oral ease
Until a dentist spots the cause, pulls the proper switch—
Amalgam's out, or gold is, it doesn't matter which.

The connection now is broken, as when you blow a fuse.
Recovery is rapid, so goes the doctor's news.
And if the charge the dentist makes brings a worried frown,
The patient can be happy his battery's run down.

Ray Black

To facilitate the application of finger pressure through the perforations. the first tray is constructed with ridges or knobs opposite these openings.

This impression method tends to eliminate the use of stress-breakers and helps maintain a stable result. However, in the last analysis, the dentist must consider each case carefully and study biomechanics involved in arriving at a conclusion, cautions Doctor Leff.

Doctor Hindels' Technique

Another proponent of the mucostatic principle and the dual impression technique for extension saddle-precision attachment partial dentures, is Doctor G. W. Hindels. He claims that the functional ridge form, unlike the anatomic, is not a definite consistently recurring contour of the ridge. It varies according to the degree and direction of stress placed on it, as delivered by the type and consistency of impression material used.

He points out that the mucosa always tries to return to its normal anatomic and physiologic state and introduces dislocating forces under the saddle. The result is a decrease in the latter's stability and accelerated tissue resorption due to traumatic and improperly distributed stresses, caused by the inability of the mucosa to maintain its anatomic form during function.

He believes that the one-piece colloidal or plaster impression will produce a cast which cannot possibly represent a functional relationship between the various supporting structures of the mouth.

With a partial denture in position, the occlusal rest will fit the rest seat of the abutment tooth, whereas the denture base will fit the surface of the mucosa at rest. Should a masticatory load be applied to the extension saddle, the rest will act as a definite stop, preventing the part of the saddle near the abutment tooth from transmitting the load to the underlying anatomic structures. The distal end of the saddle, being able to move freely, will transmit the full masticatory load unevenly to the mucosa, resulting in trauma to the underlying tissue and bone.

Like Doctor Leff, Doctor Hindels states that to assure proper load distribution, the tissue surface of the saddle should be a negative reproduction of the anatomic undistorted surface of the alveolar mucosa. Moreover, the masticatory load should be distributed between the ridge and the abutment teeth during function and cannot be carried solely by the alveolar ridge.

Since the tissue surface of the saddle reflects the undistorted anatomy of the mucosa at rest, the amount of tissue displacement under masticatory load will be minimal. (The mucostatic principle implies that soft tissue cannot be compressed if it is confined between a perfectly fitting denture base and the underlying bone.)

On release of masticatory stress, the saddle will move occlusally with the rebounding tissues and the occlusal rest will lift slightly off the floor of the rest seat on the abutment tooth.

If a masticatory load is again applied, the saddle will be able to move evenly tissue-ward, without interference from the occlusal rest, until the mucosa is fully displaced and the alveolar bone in its entirety carries the load. Meanwhile, the rest will contact the floor of its seat, and the tooth will take up some of the stress.

Doctor Hindels feels that the clasp arm should be so designed and adjusted as to allow for this vertical movement, and that tightly gripping clasps should never be used.

His technique, somewhat similar to Doctor Leff's, employes a processed acrylic tray, selectively relieved. Excess material flowing on to the abutment

teeth is removed, the impression is replaced on its original site, and an alginate impression made of teeth and tray.

Doctors Applegate and Nissle

Although non-displacement techniques appear to be in the ascendency, to date, there seems to be no proof that displacement procedures produce inferior results. Take the novel technique offered by Doctors O. C. Applegate and R. O. Nissle for obtaining an equalized occlusal relationship between the prosthesis and the remaining teeth.

They feel that spot-grinding will not remove occlusal disharmonies. Consequently they advocate that the patient wear a special wax occlusal rim during sleep. The appliance will have been finished except for the addition of the teeth. It is worn at all times except when eating, producing an occlusal pattern of paths which will record exact occlusal harmony in "all jaw positions including the abnormal, eccentric ones assumed during sleep."

The adjustment of porcelain or acrylic teeth to a stone template made from this wax pattern will result in the complete elimination of malocclusal stresses, say these prominent University of Michigan prosthetists.

In 1944, Doctor W. R. Mann and Doctor Applegate offered an almost identical method for restoring a balanced occlusion, using acrylic teeth only.

Doctor Fuller

Frequently it is found that despite careful check of the centric relation, the bite is open, after processing, Accordingly, Doctor J. F. Fuller recommends that occlusal relations be registered on bite plates with rims of impression compound, previously softened, into which the patient closes in centric occlusion.

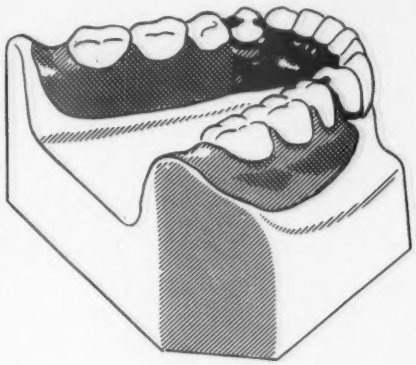
However, the resistance of the compound compresses the soft tissue, resulting in a bite open by the amount the bite plate sinks into the tissues.

Therefore, Doctor Fuller suggests the use of occlusal rests on the bite rims which are trimmed until free of contact, and the occlusion recorded with plaster.

Technique for an Impression

Doctor J. M. Schweitzer describes the following technique for taking an impression of an upper jaw with an extreme anterior undercut and with only the anterior teeth remaining:

First, a modeling compound impression is taken in a tray that has been greased with alboline. Next, the compound is removed from the tray and cut away, forming an open window on the labial surfaces of the remaining teeth.



When the impression is muscle-trimmed and postdammed, first being sufficiently relieved in the undercut areas so that it can be easily inserted and removed. The compound is then scraped to relieve the hard areas and perforated throughout the entire impression with a large round bur, to allow for escape of the wash material.

Next, the compound is squared and luted anteriorly, so that it can be removed in one piece and placed in a definite seat when the wash sets. A Plastogum (plaster-like material) wash is now introduced into the mouth; the impression is held in position; and an anterior window is made of the same material, with the patient muscle trimming before the wash sets. Upon hardening, the impression is removed in two sections; first, the anterior, then the posterior portion.

Doctor Schweitzer is of the opinion that most partials need rebasing or renewal of the saddles after being worn for more than a year or two, because they lose occlusal contact and cause tooth rotation and tipping. He advocates the use of fluid wax, rebasing pastes and even plaster, for correcting resorbed saddle areas. Additions can also be cast in metal and soldered to the saddle area. Here, however, there is a greater chance for error than when acrylic is used for the rebase.

This well-known clinician cautions against the use of excessive pressure when taking the impression for rebasing, lest the finished bridge cause additional tissue resorption.

A Final Word—Doctor Matthews'

Finally, it is Doctor E. Matthews' opinion that the most common form of partial denture is tissue-borne and, if not serviced periodically, can be most destructive to the supporting structures.

In order to test for the necessity of relining, he recommends covering the denture with a smooth paste of zinc oxide and liquid paraffin on the tissue-contact areas.

The denture is inserted and the patient instructed to close. If the area of positive pressure coin-

cides with the saddle area, the denture does not need relining; but, if a layer of paste remains, the latter should be removed, and a normal relining technique followed.

NEXT MONTH: PART SIX

BIBLIOGRAPHY

Applegate, O. C. and Nissle, R. O., Keeping the Partial Denture in Harmony with Biologic Limitations, *J.A.D.A.* 43: 409-419, October 1951.

DeVan, M. M., Basic Principles in Impression Making, *J. Pros. Den.* 2:26-35, January, 1932.

Fuller, J. F., Partial Denture Construction, *New Zealand D. J.* 43: 117-132, July, 1947.

Hindels, G. W., Load Distribution in Extension Saddle Partial Dentures, *J. Pros. Den.* 2:92-100, January, 1952.

Leff, Alexander, Precision Attachment Dentures, *J. Pros. Den.* 2: 84-91, January, 1952.

Mann, W. R. and Applegate, O. C., Acrylic Teeth As a Means of Obtaining Balanced Functional Occlusion in Partial Denture Prosthesis, *J.A.D.A.* 31: 504-514, April, 1944.

McKenzie, J. S., Some Periodontal Considerations in Partial Denture Planning, *J.A.D.A.* 45: 314-318, September, 1952.

Matthews, Ernest, Partial Denture Problem, *Brit. D. J.* 92: 173-179, April 1, 1952.

Schuyler, C. H., *Oral Diagnosis and Treatment*, edited by S. C. Miller, Philadelphia: Blakistan Co., 1936; ed. 2, 1946.

Schweitzer, J. M., *Restorative Dentistry*, St. Louis: C. V. Mosby Co., 1947.

—●—

DOCTOR SEYLER SAYS

Dr. C. H. Seyler, associate professor of operative dentistry and director of the children's clinic, University of Detroit School of Dentistry, offers the following as important characteristics necessary for a dentist in dealing with both children and their parents.

Friendliness: Children sense this and are made to feel at ease.

Understanding: See things through the eyes of the child.

Sense of humor: Laugh with the children but never laugh at them.

Enthusiasm: Be enthusiastic. Your interest will be transferred to the child.

Sense of responsibility: This is a characteristic all dentists should have to the individual, the parent, to dentistry, and to society in general.

Sincerity: A belief that the work you are performing is necessary to the patient's well-being and is the best you can do.

Physical strength: The ability to be able to cope with the unruly child when necessary or to complete a task that may be tiring or disagreeable.

Personal cleanliness: A "must" in all dental work and about which there can be no compromise.

In carving a pumpkin for my darling son,
I'm not so much set upon grace,
Or horror, or humor, as developing one
With a generous mouth in its face!

No elegant arch, no delicate O,
No puckered-up kisser will do.
I have no strange twist, no cute Cupid's bow,
No tight-lipped expression in view.

Oh, give me a knife that is massive and broad
Or a hatchet that's massive and stout.
(It may even be that the thing can be sawed,
Or hammered or punched or hacked out!)

Twenty teeth are too many; I'll give him just four,
Nor care if they miss or they hit!
Chips may fall where they may—what's one less, or more?
By golly! I don't care a whit!

From patients whose mouths are too narrow or tight,
This is a most welcome escape.
I can let myself go almost berserk tonight
And pull this mouth all out of shape!

He may look the very antithesis
Of joy—like Doc Jekyll turned Hyde!
I can't guarantee anything—except this:
His mouth will be great, big and wide!

Helen Harrington